Installation and service instructions

for contractors

Vitodens 100-W
Type WB1B, 7.9 to 26.0 kW
Wall mounted gas fired condensing boiler
Natural gas and LPG version
Gas council no.: 41-819-21; 41-819-22; 41-819-23; 41-819-24

VITODENS 100-W

5368 662 GB 2/2009

Please keep safe.

Safety instructions

Please follow these safety instructions closely to prevent accidents and material losses.

Safety instructions explained

Danger
This symbol warns against the risk of injury.

Please note
This symbol warns against the risk of material losses and environmental pollution.

Note
Details identified by the word "Note" contain additional information.

Target group

These instructions are exclusively designed for qualified personnel.
- Work on gas equipment must only be carried out by a qualified gas fitter.
- Work on electrical equipment must only be carried out by a qualified electrician.
- The system must be commissioned by the system installer or a qualified person authorised by the installer.

Regulations

Observe the following when working on this system
- all legal instructions regarding the prevention of accidents,
- all legal instructions regarding environmental protection,
- the Code of Practice of relevant trade associations,
- all current safety regulations as defined by DIN, EN, DVGW, TRGI, TRF, VDE and all locally applicable standards,
- Gas Safety (Installation & Use) Regulations
  - the appropriate Building Regulation either the Building regulations, the Building Regulation (Scotland), Building Regulations (Northern Ireland),
  - the Water Fittings Regulation or Water Bylaws in Scotland,
  - the current I.E.E. Wiring Regulations.

If you smell gas

Danger
Escaping gas can lead to explosions which may result in serious injury.
- Never smoke. Prevent naked flames and sparks. Never switch lights or electrical appliances ON or OFF.
- Close the gas shut-off valve.
- Open windows and doors.
- Remove all people from the danger zone.
- Notify your gas or electricity supplier from outside the building.
- Shut off the electricity supply to the building from a safe place (outside the building).

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Safety instructions (cont.)

If you smell flue gas

Danger
Flue gas can lead to life-threatening poisoning.
- Shut down the heating system.
- Ventilate the boiler room.
- Close all doors leading to the living space.

Working on the system

- When using gas as fuel, also close the main gas shut-off valve and safeguard against unauthorised reopening.
- Isolate the system from the power supply and check that it is no longer 'live', e.g. by removing a separate fuse or by means of a main isolator.
- Safeguard the system against unauthorised reconnection.

Please note
Electronic modules can be damaged by electro-static discharges.
Touch earthed objects, such as heating or water pipes, to discharge static loads.

Repair work

Please note
Repairing components which fulfil a safety function can compromise the safe operation of your heating system.
Replace faulty components only with original Viessmann spare parts.

Ancillary components, spare and wearing parts

Please note
Spare and wearing parts which have not been tested together with the heating system can compromise its function. Installing non-authorised components and non-approved modifications/conversion can compromise safety and may invalidate our warranty.
For replacements, use only original spare parts from Viessmann or those which are approved by Viessmann.

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Product information

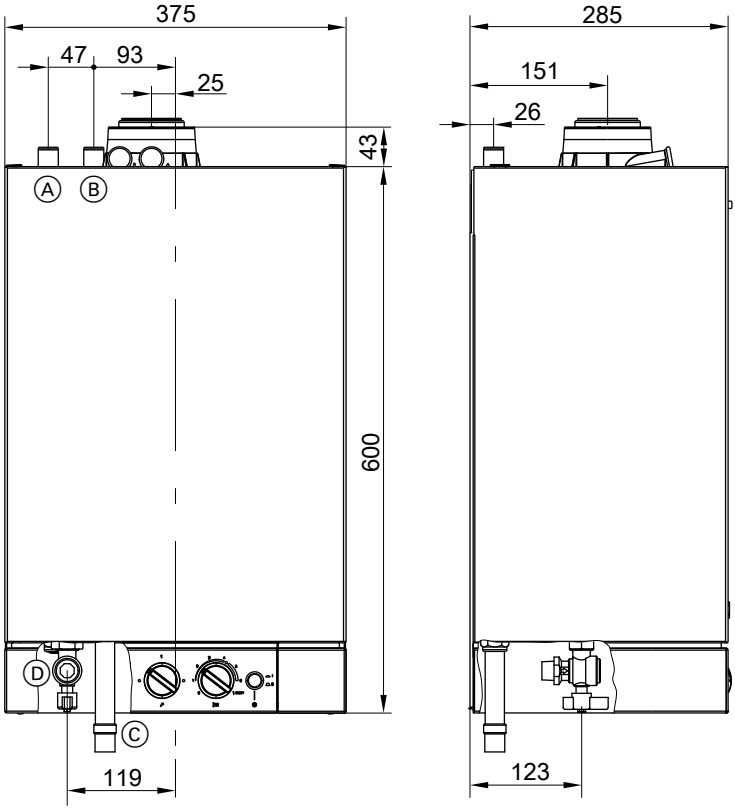
Vitodens 100-W, WB1B

Set up for operation with natural gas.

Preparing for installation

Preparing the boiler installation

Dimensions and connections

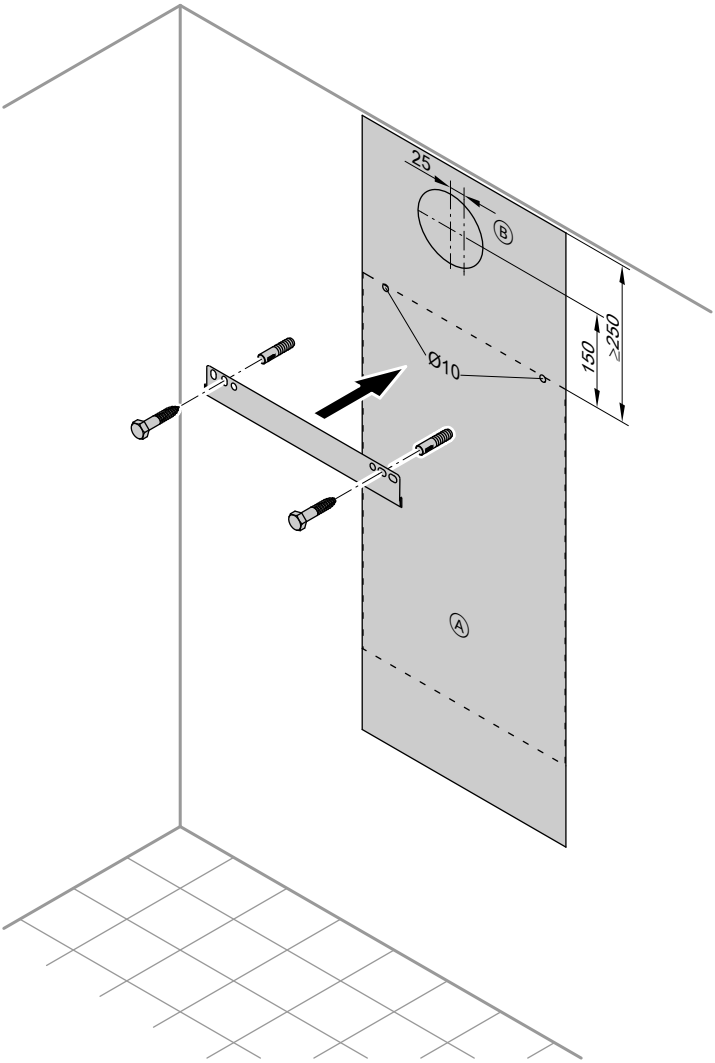


Ⓐ Heating flow
Ⓑ Heating return
Ⓒ Condensate drain: Plastic pipe ∅ 22 mm

Preparing for installation (cont.)

Ⓓ Gas connection, 1/2" male iron

Fitting the wall retainer



Ⓐ Vitodens installation template

Ⓑ Opening for the balanced flue

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Preparing for installation (cont.)

1. Position the installation template provided on the wall.
2. Mark out the rawl plug holes.
3. Drill ∅10 mm holes and insert the rawl plugs provided.
4. Secure wall retainer with screws provided.

Preparing the connections

1. Prepare the water connections. Flush the heating system.
2. Prepare gas connection.
3. Prepare the electrical connections. Observe valid IEEE standards.
   - A 1.5 m long power cable is fitted as standard.
   - Accessory cables: NYM-O two-core min. 0.5 mm^2.

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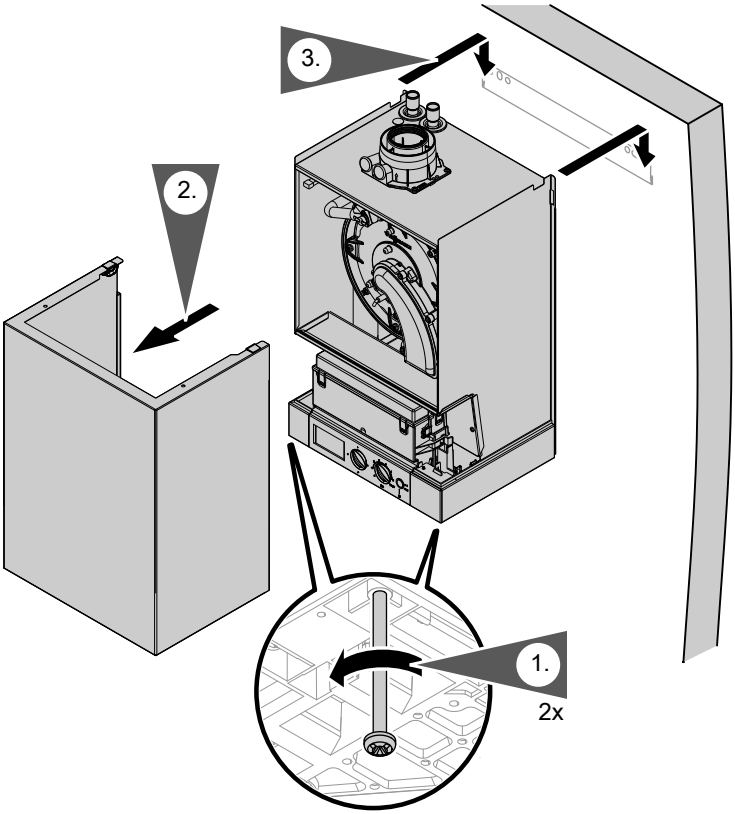
Installing the boiler and making all connections

Removing the front panel and mounting the boiler



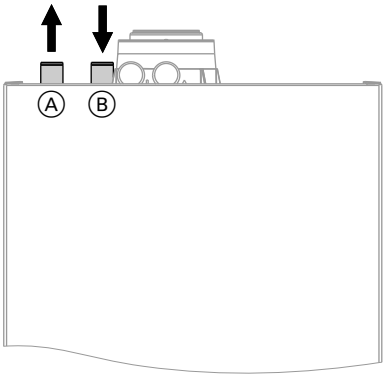
1. Release screws at the bottom of the boiler; do not remove completely.

2. Remove front panel.

3. Hook the boiler into the wall retainer.

Installing the boiler and making all connections (cont.)

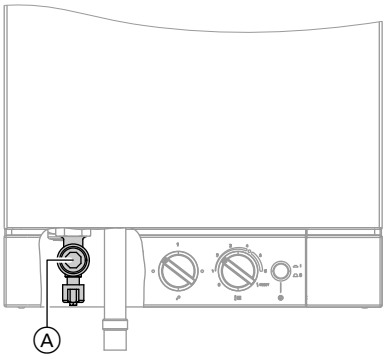
Installing connections on the water side



Ⓐ Heating flow

Ⓑ Heating return

Gas connection



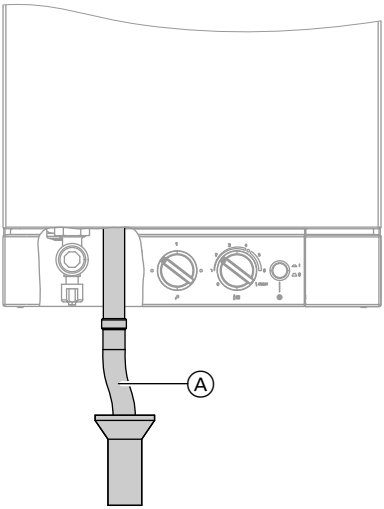
1. Connect gas shut-off valve to connection Ⓐ.
2. Carry out a tightness test.

   Please note
   Excessive test pressure may damage the boiler and gas valve.
   Max. test pressure 150 mbar.
   Where higher pressure is required for tightness tests, separate the boiler and gas valves from the gas supply pipe (undo the fitting).

3. Vent the gas line.

Installing the boiler and making all connections (cont.)

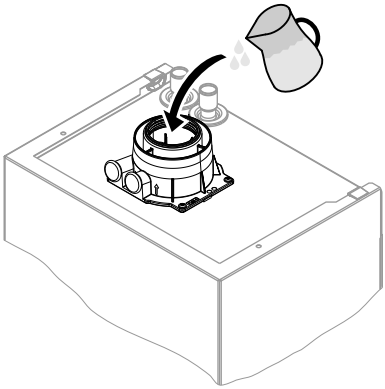
Condensate connection



Connect condensate drain Ⓐ with a slope and pipe vent to the public sewer. Observe the local waste water regulations.

Note
Fill the siphon with water before commissioning.

Filling the siphon with water



Fill the flue gas connection with a minimum of 0.3 l of water.

Please note
During commissioning, flue gas may be emitted from the condensate drain.
Fill the siphon with water immediately prior to commissioning.

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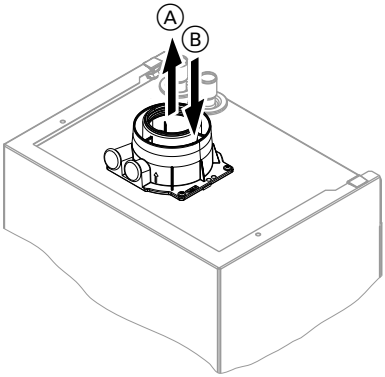
Installing the boiler and making all connections (cont.)

Balanced flue connection



Connect the balanced flue.
During installation and positioning of the flue system, observe building regulations part L, J and BS 5440 Part 1 and 2.

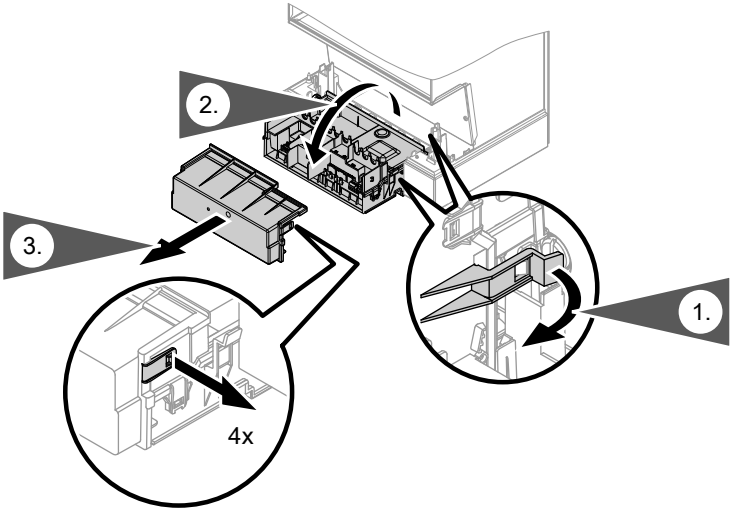
Flue system installation instructions.

Ⓐ Flue gas
Ⓑ Ventilation air

Opening the control unit casing

! **Please note**
Electronic modules can be damaged by electrostatic discharge.
Before beginning work, touch earthed objects, such as heating or water pipes, to discharge static loads.

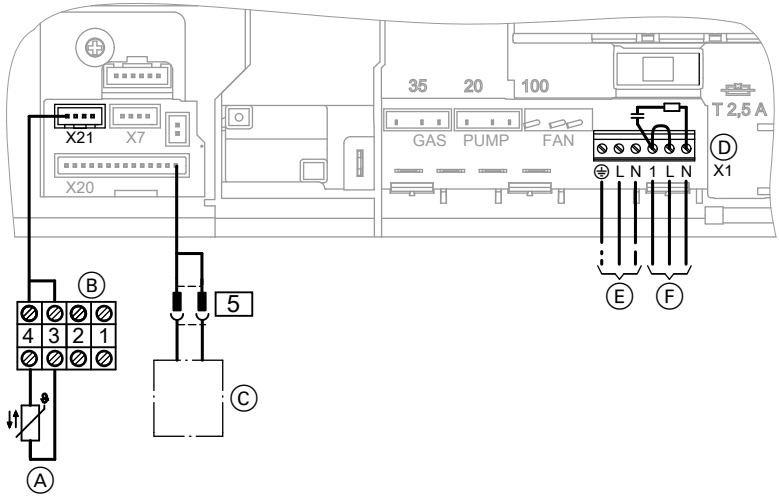
Opening the control unit casing (cont.)



Electrical connections

Information regarding the connection of accessories
For connection of accesseries, observe the separate installation instructions provided with the accessories.

Electrical connections (cont.)



Note
Pump can be connected externally of the boiler through the external terminal box

Ⓐ Only for weather-compensated mode:
Outside temperature sensor (accessory)
Ⓑ Lead (accessory)
Ⓒ Terminal box cylinder demand (accessory; see separate installation instructions)
Ⓓ Jumper (remove when connecting a room thermostat or switched live for 'Y' or 'S' Plan installation)
Ⓔ Power supply (230 V, 50 Hz).

Danger
Incorrect wire allocation can cause severe injuries and damage to the equipment. Take care not to interchange wires "L1" and "N".

The power supply must be equipped with a neutral conductor. Water pipes should be connected to the earth bonding of the house in question.
Ⓕ Vitotrol 100 (room thermostat) or on-site room temperature controller

Separate installation instructions

or
Input for Y-plan or S-plan heating systems

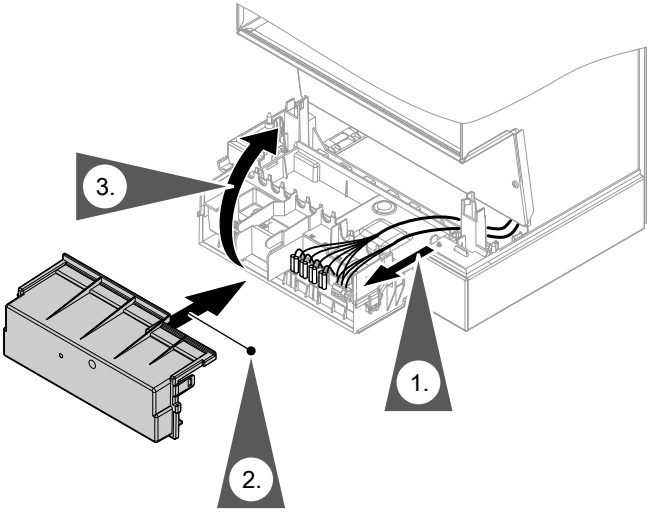
Electrical connections (cont.)

Outside temperature sensor (accessory)

1. Plug the lead supplied with the outside temperature sensor into socket "X21".
2. Connect the outside temperature sensor to terminals 3 and 4.

Routing leads and closing control unit casing

Please note
Leads will be damaged if they come into contact with hot parts.
When routing and securing leads on site, ensure that the maximum permissible temperatures for these cables are not exceeded.



Steps - commissioning, inspection and maintenance

For further information regarding the individual steps, see the page indicated

Commissioning steps	Inspection steps	Maintenance steps		Page
•	•	•	**1. Filling the heating system**	16
•	•	•	**2. Converting to operation with LPG**	16
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	•	•	**4. Burner removal**	20
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•	•	•	**10. Checking all connections on the heating water side and DHW side for leaks**	
•	•	•	**11. Checking electrical connections for tightness**	
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Further details regarding the individual steps

Filling the heating system

Please note
Unsuitable fill water increases the level of deposits and corrosion and may lead to boiler damage.
- Thoroughly flush the heating system prior to filling it with water.
- Only use fill water of potable quality.
- Soften fill water harder than 300 ppm.
- An antifreeze additive suitable for heating systems can be mixed with the fill water.

Fill and vent heating system.

Converting to operation with LPG

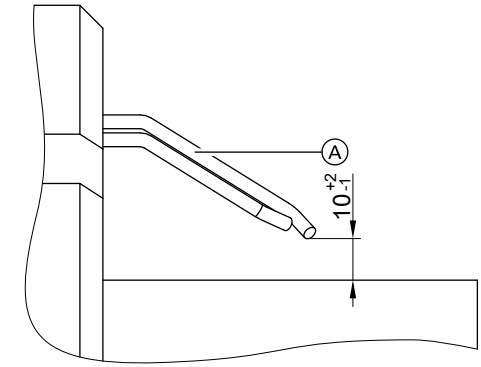
In the delivered condition, the boiler is set up for operation with natural gas. For operation with LPG, the gas nozzle must be changed and the gas type converted in the control unit.

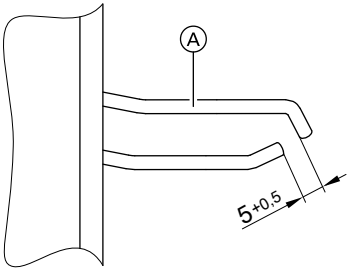
Changing from LPG to natural gas - see page 37.

Separate installation instructions.

Further details regarding the individual steps (cont.)

Checking and adjusting the ignition and ionisation electrodes





Ⓐ Ignition and ionisation electrode

Check the electrode for wear and contamination
Clean the electrode with a small brush (not with a wire brush) or emery paper.

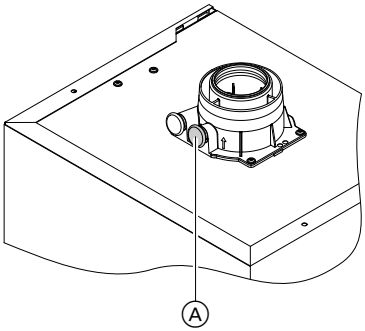
Check all clearances. If the gaps are not as specified or the electrode is damaged, replace and align the electrode together with new gaskets. Tighten the electrode fixing screws. (2.5 Nm approx.).

Further details regarding the individual steps (cont.)

Checking the CO_2 or O_2 content

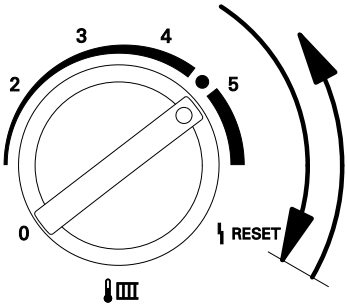
Vitodens 100-W is factory-set for natural gas. During commissioning or maintenance, the CO_2 and CO have to be measured at the boiler flue adaptor test point to check the flue integrity. Subject to the Wobbe index, the CO_2 content fluctuates between 7.4 % and 10.5 %. And CO of up to 500 ppm is acceptable.

We recommend to measure O_2 as the value is unmistakable regarding lambda (air/gas). The O_2-content fluctuates between 7.5 % and 3.2 %. Or alternatively CO/CO_2 ratio has to be less than 0.004.
If the actual CO_2 or O_2 and CO values deviate from the stated range, check the balanced flue systems for leaks. If flue installation is o.k., change the gas valve.



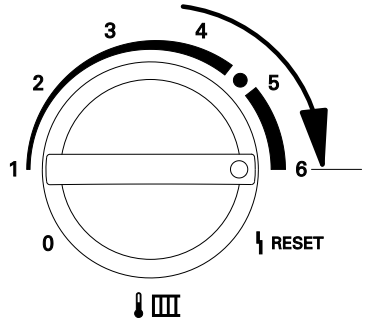
1. Connect a flue gas analyser at flue gas port Ⓐ on the boiler flue connection.

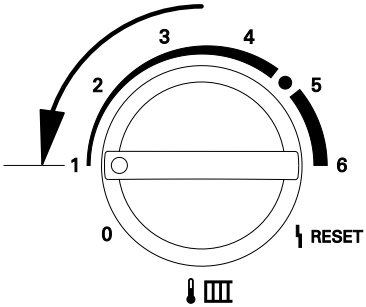
2. Start the boiler.



3. Turn rotary selector "🌡" clockwise for less than 2 s and then anticlockwise back to the control range on the right.
   The display shows **"SERV"** and the boiler water temperature is shown.

Further details regarding the individual steps (cont.)





4. Adjust the upper output:
Turn rotary selector "🌡" to the control range on the right.
The display shows 5 bars for upper output.

5. Measure the CO_2 content for upper output.
The CO_2 content must be between 7.4 and 10.5 %.

6. Adjust the lower output:
Turn rotary selector "🌡" to the left control range.
The display shows 1 bar for lower output.

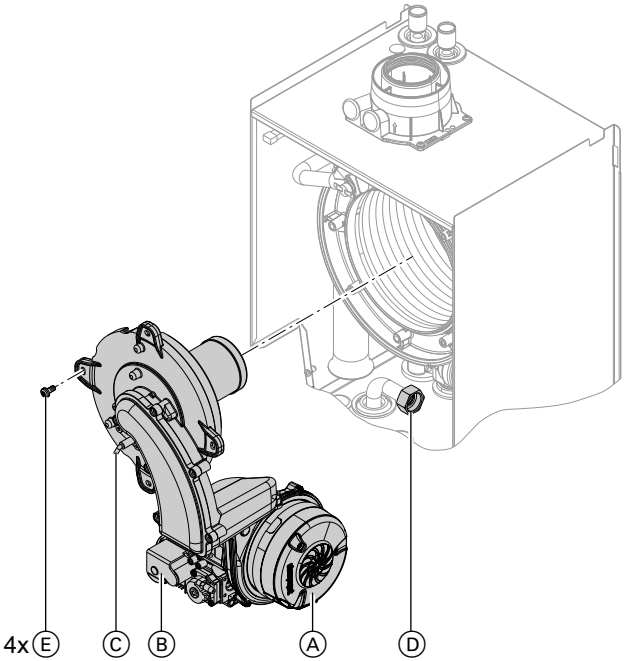
7. Test the CO_2 content for lower output.
The CO_2 content must be between 7.4 and 10.5 %.

8. If the CO_2 content is **not** within the given range, check the flue gas/ventilation air system for tightness.
Remedy any leaks.

9. Shut the boiler down, remove flue gas analyser and close flue gas port Ⓐ.

Further details regarding the individual steps (cont.)

Burner removal



1. Switch OFF the power.
2. Shut off the gas supply.
3. Disconnect electrical cables from fan motor Ⓐ, gas valve Ⓑ.
4. Open control unit casing (see page 11) and pull out the lead to ignition electrode Ⓒ.
5. Disconnect the venturi extension from fan Ⓐ.
6. Disconnect gas supply pipe Ⓓ fitting.
7. Undo four screws Ⓔ and remove the burner.

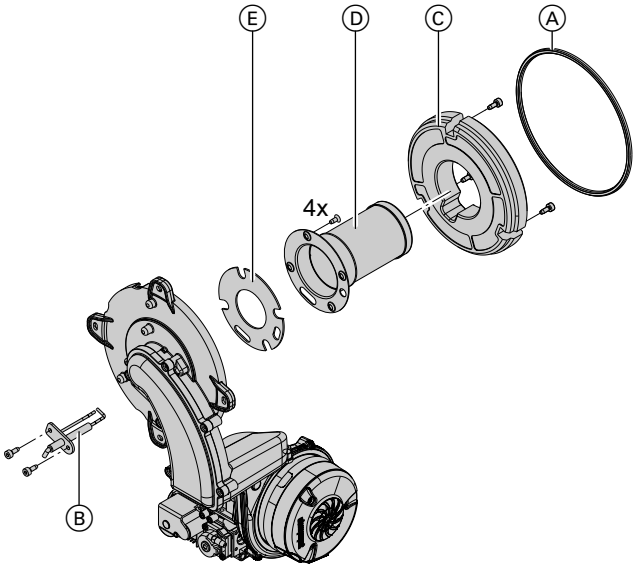
! **Please note**
To prevent damage, never rest the burner on the gauze assembly.

Further details regarding the individual steps (cont.)

Checking the burner gasket and the burner gauze assembly

Check burner gasket Ⓐ for damage and replace if required.

Replace the burner gauze assembly if it is damaged.



1. Remove electrode Ⓑ.
2. Undo the three cheese-head screws and remove thermal insulation ring Ⓒ.
3. Undo four Torx screws and remove burner gauze assembly Ⓓ with its gasket Ⓔ.
4. Insert and secure a new burner gauze assembly Ⓓ with a new gasket Ⓔ.
   Fixing screw torque: 3.5 Nm.
5. Refit thermal insulation ring Ⓒ.
   Fixing screw torque: 3.5 Nm.
6. Refit electrode Ⓑ.
   Fixing screw torque: 3.5 Nm.

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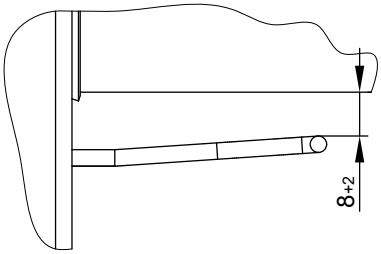
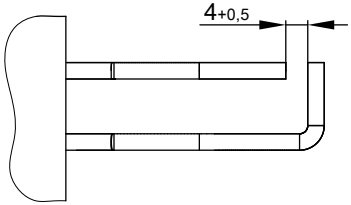
Further details regarding the individual steps (cont.)

Checking and adjusting electrodes



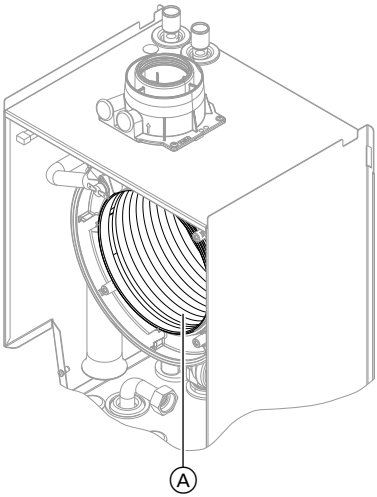


1. Check the electrode for wear and contamination.
2. Clean the electrode with a small brush (not with a wire brush) or emery paper.
3. Check the electrode gaps. If the gaps are not as specified or the electrode is damaged, replace and align the electrode together with a new gasket. Tighten the electrode fixing screws with 3.5 Nm.

Cleaning the heat exchanger

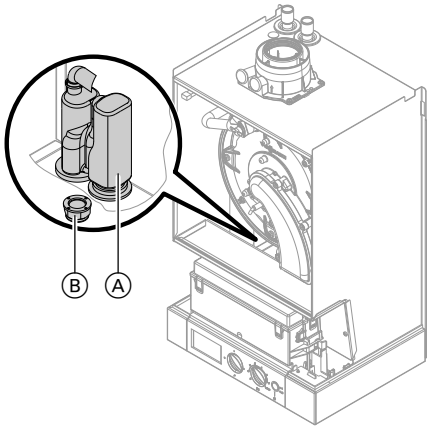
! **Please note**
Scratches on parts that come into contact with flue gas can lead to corrosion.
Never use brushes to clean the heat exchanger.

Further details regarding the individual steps (cont.)



1. Use a vacuum cleaner to remove residues from heat exchanger Ⓐ inside the combustion chamber.
2. If required, spray slightly acidic, chloride-free cleaning agents based on phosphoric acid onto heat exchanger Ⓐ and let the solution soak in for approx. 20 min.
3. Thoroughly flush heat exchanger Ⓐ with water.

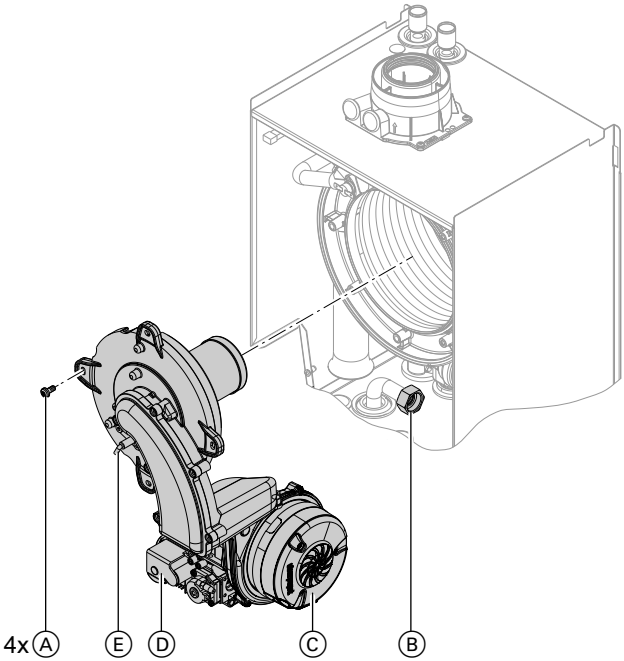
Checking the condensate drain and cleaning the siphon



1. Check at siphon Ⓐ that the condensate can drain freely.
2. Place an appropriate container under siphon Ⓐ.
3. Remove locking cap Ⓑ and drain the contents of siphon Ⓐ into the container.
4. Replace locking cap Ⓑ with gasket.
5. Fill siphon Ⓐ with water by pouring about 0.3 l of water into the combustion chamber.

Further details regarding the individual steps (cont.)

Burner installation



1. Fit the burner and torque screws Ⓐ diagonally with 4.0 Nm.
2. Insert new gasket and tighten the fittings on gas supply pipe Ⓑ.
3. Push the venturi extension on to fan Ⓒ.
4. Attach electrical cables to fan motor Ⓒ and gas valve Ⓓ.
5. Push ignition electrode cable Ⓔ into the control unit and close the control unit casing.
6. Reopen gas supply and switch on power supply.
7. Check the gas connections for tightness.

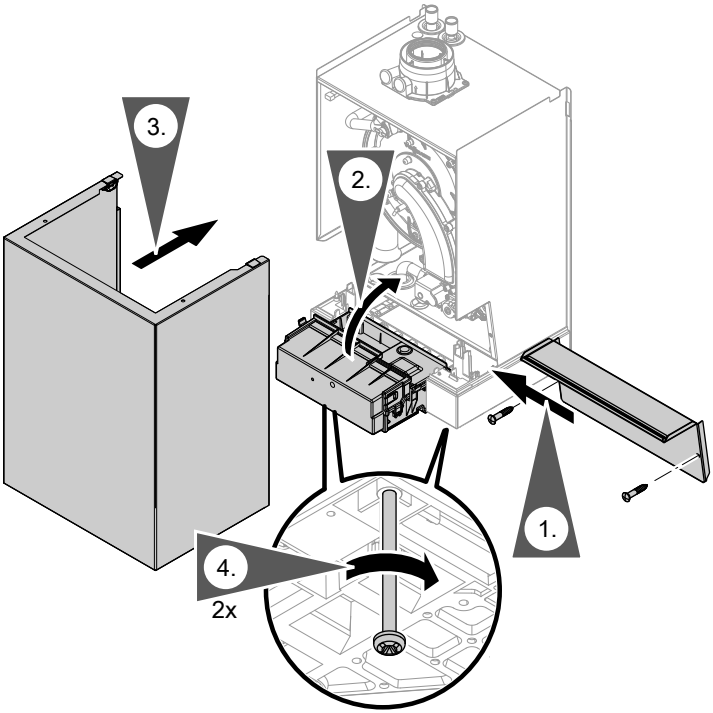
Danger
Escaping gas leads to a risk of explosion.
Check all fittings for gas tightness.

Further details regarding the individual steps (cont.)

Checking gas equipment for tightness at operating pressure

Danger
Escaping gas leads to a risk of explosion.
Check gas equipment for tightness.

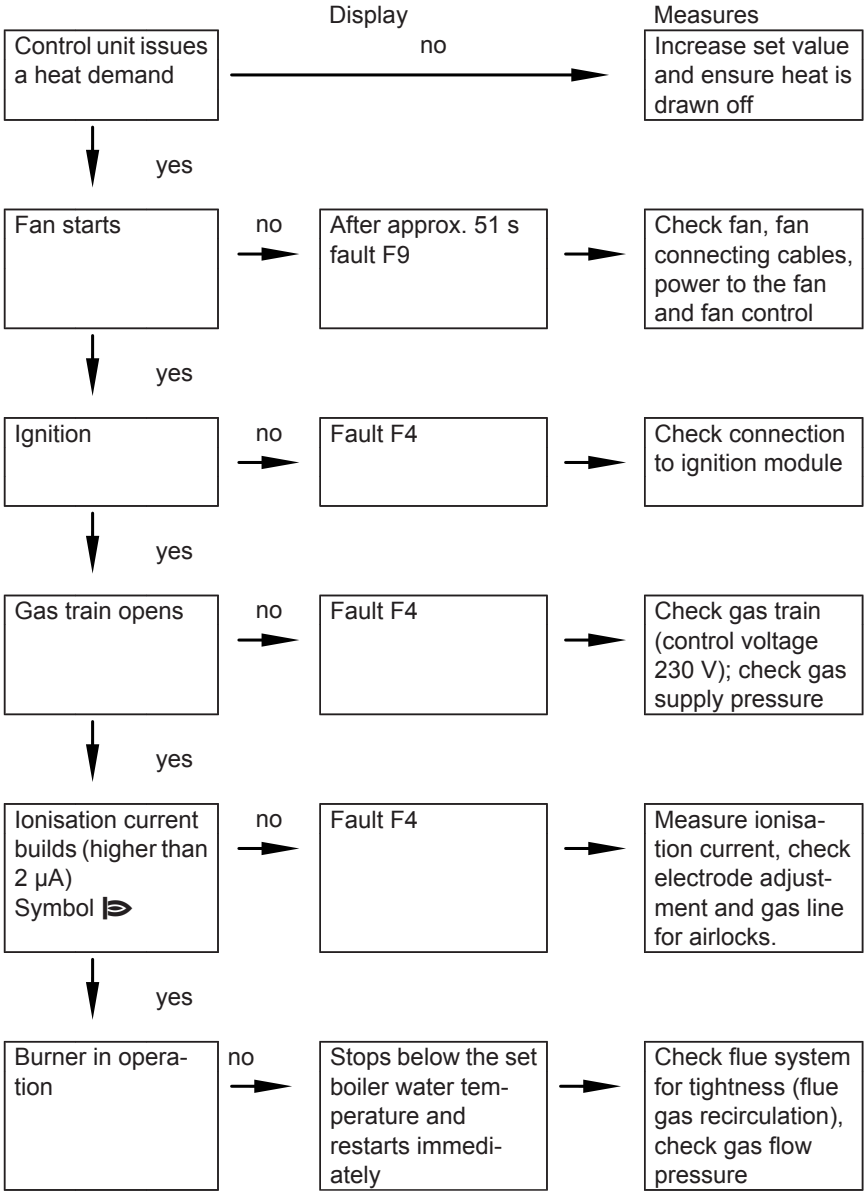
Fitting the front panel



Instructing the system user

The system installer must hand the operating instructions to the system user and instruct him/her in the operation of the system.

Function sequence and possible faults



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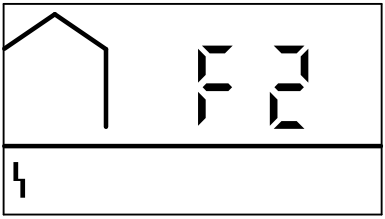
Fault messages on the display



Faults are indicated by a flashing fault code with fault symbol "ϟ" on the display.
For fault code explanations see the following table.

- Flashing fault symbol "ϟ": To reset press "ϟ RESET" (see page 30) after the fault has been remedied
- Constantly displayed fault symbol "ϟ": Will automatically reset after the fault is remedied

Fault code on display	System characteristics	Cause	Measures
10	Constant mode	Short circuit, outside temperature sensor	Check outside temperature sensor and lead (see page 31).
18	Constant mode	Outside temperature sensor lead broken	Check outside temperature sensor and lead (see page 31).
30	Burner switched off	Short circuit, boiler water temperature sensor	Check boiler water temperature sensor (see page 33).
38	Burner switched off	Boiler water temperature sensor lead broken	Check boiler water temperature sensor (see page 33).
50	No DHW heating	Terminal box cylinder demand fault	Check terminal box connections and replace terminal box if required.
58	No DHW heating	Terminal box cylinder demand fault	Check terminal box connections and replace terminal box if required.
60	Burner switched off	Short circuit, return temperature sensor	Check return temperature sensor (see page 33).
68	Burner switched off	Return temperature sensor lead broken	Check return temperature sensor (see page 33).
A9	Control mode without Open Therm device	Communication fault Open Therm device	Check connections and lead; replace Open Therm device if required.

Fault messages on the display (cont.)

Fault code on display	System characteristics	Cause	Measures
b0	Burner switched off	Short circuit, flue gas temperature sensor	Check sensor (see page 34).
b8	Burner switched off	Flue gas temperature sensor lead broken	Check sensor (see page 34).
E5	Burner switched off	Internal fault	Check ionisation electrode and connecting leads. Press "Reset" (see page 30).
F0	Burner switched off	Internal fault	Replace control unit.
F1	Burner in a fault state	Max. flue gas temperature exceeded	Check heating system fill level. Check circulation pump. Vent system. Press "Reset" (see page 30).
F2	Burner in a fault state	Temperature limiter has responded	Check heating system fill level. Check circulation pump. Vent system. Check temperature limiter and connecting leads. Press "Reset" (see page 30).
F3	Burner in a fault state	Flame signal is already present at burner start	Check ionisation electrode and connecting lead. Press "Reset" (see page 30).
F4	Burner in a fault state	No flame signal is present	Check ignition/ionisation electrode and connecting leads, check gas pressure, check gas train, ignition, ignition module and condensate drain. Press "Reset" (see page 30).

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Fault messages on the display (cont.)

Fault code on display	System characteristics	Cause	Measures
F8	Burner in a fault state	Fuel valve closes too late	Check gas train. Check both control paths. Press "Reset" (see page 30).
F9	Burner in a fault state	Fan speed too low during burner start	Check fan, check fan connecting cables and power supply, check fan control. Press "Reset" (see page 30).
FA	Burner in a fault state	Fan not at standstill	Check fan, fan connecting cables and fan control. Press "Reset" (see page 30).
FC	Burner blocked	Electrical fan control (control unit) faulty	Check fan connecting cables and replace if required, or replace control unit
Fd	Burner blocked	Burner control unit fault	Check ignition electrodes and connecting cables. Check whether a strong interference (EMC) field exists near the appliance. Press "Reset" (see page 30). Replace control unit if fault persists.
FF	Burner blocked	Burner control unit fault	Check ignition electrodes and connecting cables. Check whether a strong interference (EMC) field exists near the appliance. Press "Reset" (see page 30). Replace control unit if fault persists.

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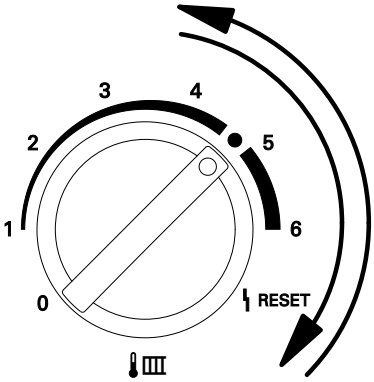
Fault messages on the display (cont.)

Press reset

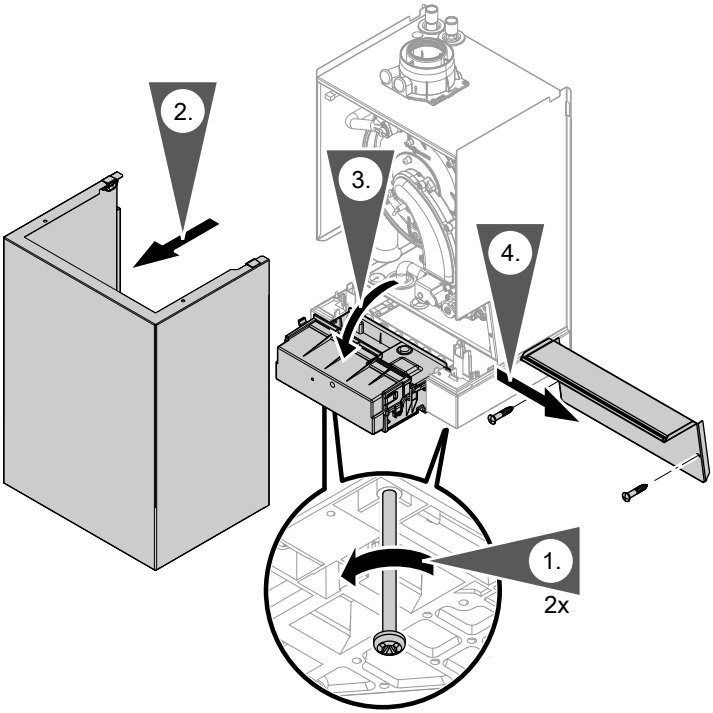
Note
*Only press RESET if fault symbol "ϟ" is **flashing**.*



Turn rotary selector "🌡" to "ϟ RESET" in under 2 s, then back to the control range.

Repairs

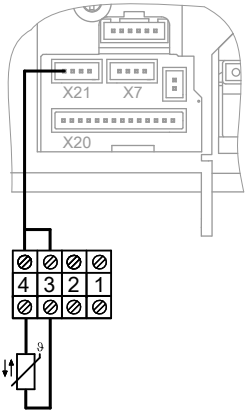
Removing front panel and pivoting control unit downwards



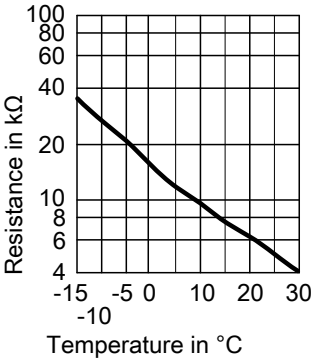
Outside temperature sensor

Note
The outside temperature sensor can only be connected if
a) the boiler does heating only
b) the boiler serves heating and hot water a separate switched live connection from the DHW programmer has to be connected to the boiler (see separate instructions control box)

Repairs (cont.)



1. Open the control unit casing. See page 11.
2. Disconnect outside temperature sensor leads.



3. Check the sensor resistance and compare it with the curve.
4. Replace the sensor if the resistance varies significantly from the figure shown.

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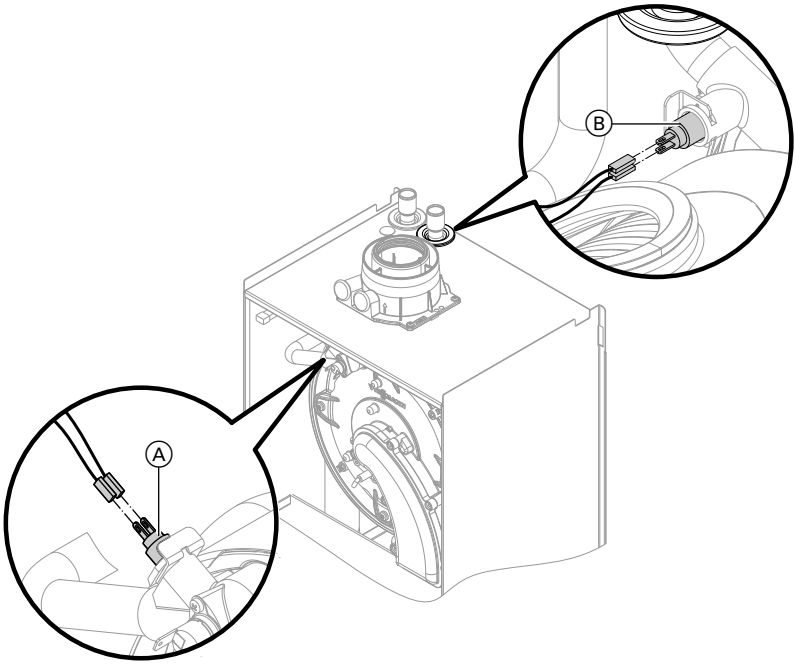
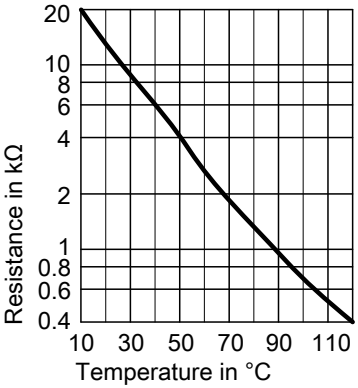
Repairs (cont.)

Checking the boiler water temperature sensor and return temperature sensor



1. Pull the leads from boiler water temperature sensor Ⓐ or return temperature sensor Ⓑ and check the resistance.

Repairs (cont.)

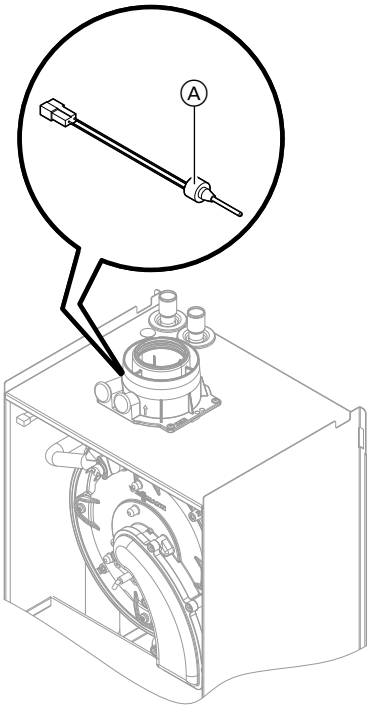


2. Check the sensor resistance and compare it with the curve.

3. If the resistance varies significantly from the figure shown, drain boiler on the heating water side and replace the sensor.

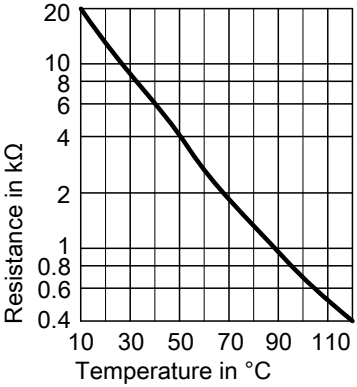
Danger
The boiler water temperature sensor is immersed in the heating water (risk of scalding).
Drain the boiler before replacing the sensor.

Checking the flue gas temperature sensor



1. Pull the leads from flue gas temperature sensor Ⓐ and check the resistance.

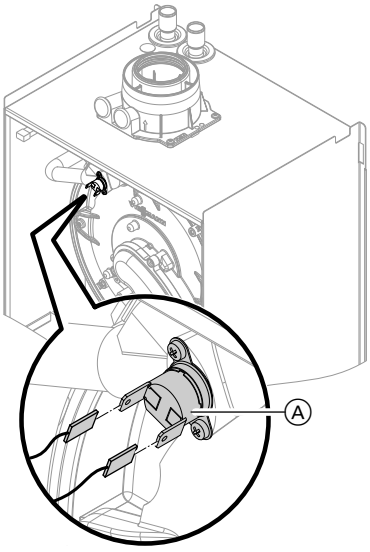
Repairs (cont.)



2. Check the sensor resistance and compare it with the curve.
3. Replace the sensor if the resistance varies significantly from the figure shown.

Checking the temperature limiter

If the burner control unit cannot be reset after a fault shutdown, although the boiler water temperature is below approx. 95 °C, check the temperature limiter.



1. Pull the leads from temperature limiter Ⓐ.
2. Check the continuity of the temperature limiter with a multimeter.
3. Remove the faulty temperature limiter.
4. Install a new temperature limiter.
5. Press "Reset" on the control unit (see page 30).

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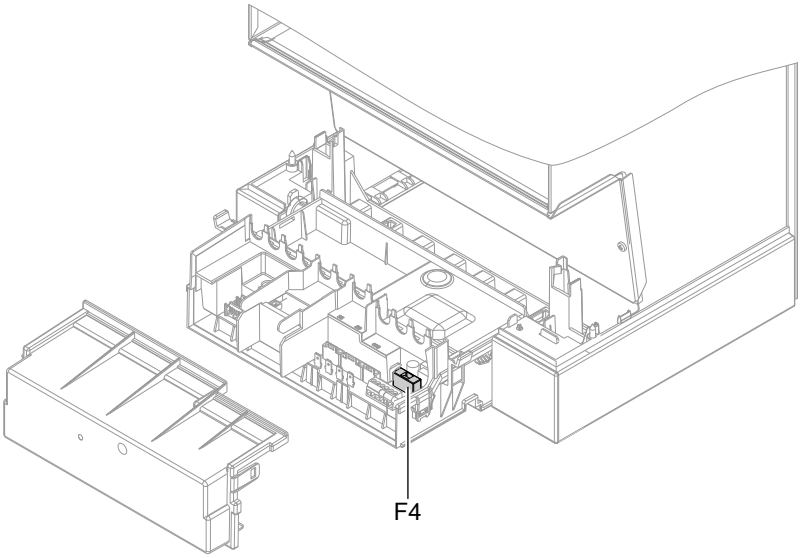
Repairs (cont.)

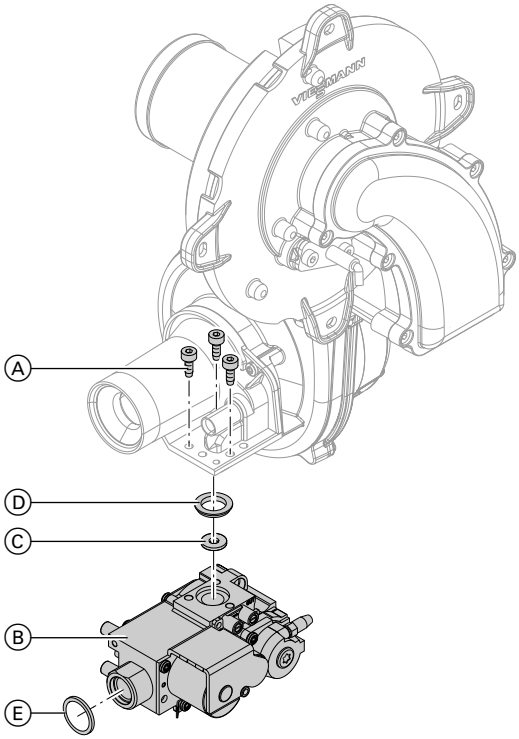
Checking the fuse



1. Switch OFF the power.
2. Open control unit casing (see page 11).
3. Check fuse F4.

Converting from LPG to natural gas

Removing gas restrictor

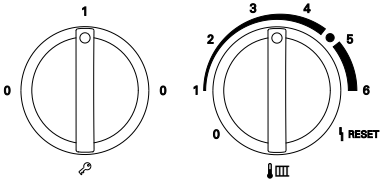


1. Remove the burner (see page 20).
2. Undo three screws Ⓐ and remove gas train Ⓑ.
3. Remove gas restrictor Ⓒ (if fitted) from gas train Ⓑ and insert new gas restrictor Ⓒ into gas train Ⓑ.
4. Fit gas train Ⓑ with a new gasket Ⓓ.
   Fixing screw torque Ⓐ: 3 Nm.
5. Refit the burner with a new gasket Ⓔ.
   Union nut torque: 22 Nm.

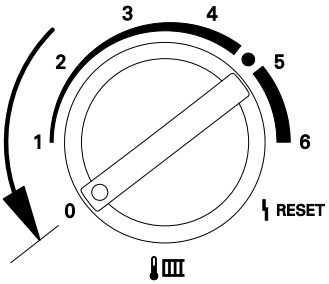
Converting gas type on the control unit

1. Turn ON/OFF switch ON.

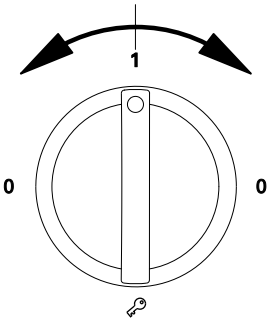
Converting from LPG to natural gas (cont.)



2. Simultaneously turn rotary selectors "🔧" and "🌡" to their central position.
"SERV" appears on the display.



3. Turn rotary selector "🌡" anticlockwise as far as it will go within 2 s.
"🔥" Appears on the display and the set value flashes.



4. Adjust the control unit to natural gas or LPG by turning the left rotary selector "🔧".
The display shows:
- **"0"** for operation with natural gas
  or
- **"1"** for operation with LPG.

5. Do **not** adjust the rotary selectors for 15 s. The set operating mode is then saved and the control unit returns to standard mode.

6. Switch ON/OFF switch off and on again. The selected gas type is now enabled

Checking the CO_2 content

See page 18.

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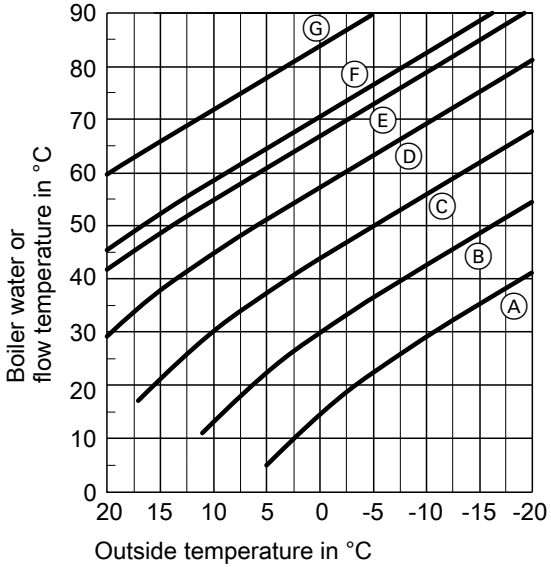
Functions and operating conditions in weather-compensated mode

In weather-compensated mode, the boiler water temperature is regulated subject to the outside temperature.

Heating curve of weather-compensated control unit



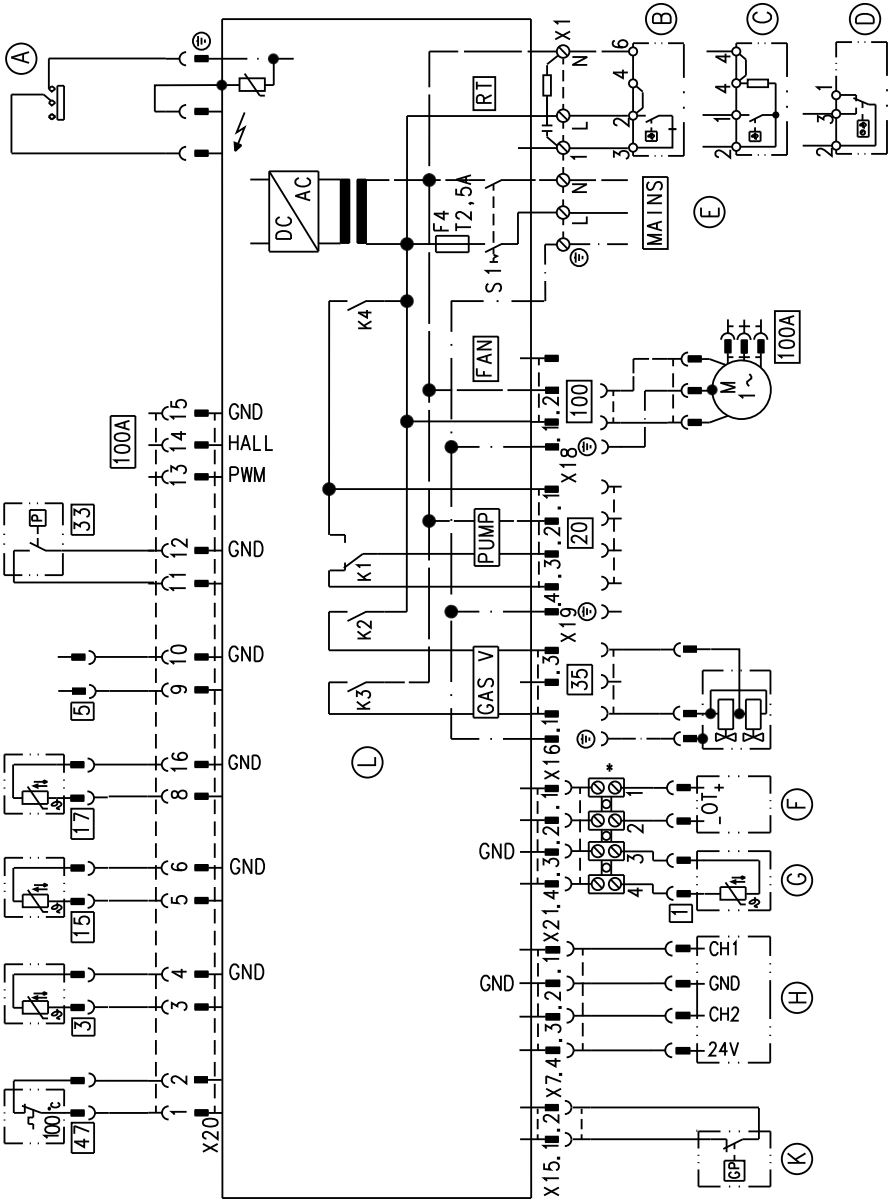
Rotary selector setting "🌡"
- Ⓐ = 1
- Ⓑ = 2
- Ⓒ = 3
- Ⓓ = 4
- Ⓔ = Delivered condition
- Ⓕ = 5
- Ⓖ = 6

Frost protection function

The frost protection is generally active when the boiler is in 'Stand-by' mode.

If the boiler temperature is less than 8C the circulating pump is ON and at a boiler temperature of 12C the pump is OFF. The burner will be switched on at a boiler temperature of 5°C and switched off at 15°C.

Connection and wiring diagram



Ⓐ Ignition/ionisation

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Connection and wiring diagram (cont.)

Ⓑ Vitotrol 100, type UTA or on-site room thermostat
Ⓒ Vitotrol 100, type RT or on-site room thermostat
Ⓓ Vitotrol 100, type UTD or on-site room thermostat
Ⓔ Mains input 230 V/50 Hz
Ⓕ Open Therm connection (remote control)
Ⓖ Outside temperature sensor (accessory)
Ⓗ Time switch (accessory)
Ⓚ Gas pressure limiter (accessory)
Ⓛ PCB inside the control unit
X ... Electrical interface
[3] Boiler water temperature sensor
[5] Cylinder demand terminal box (accessory)
[15] Flue gas temperature sensor
[17] Return temperature sensor
[20] Circulation pump
[33] Flow switch
[35] Gas solenoid valve
[47] Temperature limiter
[100] Fan motor 230 V~
[100]A Fan control

Parts lists

When ordering spare parts:
Quote the part and serial no. (see type plate) and the item number of the required part (as per this parts list). Obtain standard parts from your local supplier.

001 Heat exchanger
002 Heating water flow connection pipe
003 Heating water return connection pipe
004 Gas supply pipe
005 Boiler flue connection
006 Siphon
007 Flue gas gasket
008 Boiler flue connection plug
009 Thermal insulation block
010 Condensate pipe
011 Condensate hose
012 Fixing clips
013 Clip Ø 8 (5 pce.)
014 Burner gasket
015 Thermal insulation ring
016 Burner gauze assembly
017 Burner gauze assembly gasket
019 Gasket, ignition and ionisation electrode (5 pce.)
020 Fan
021 Gas valve
022 Burner door
024 Venturi extension
025 Control unit
026 Terminal box cover
027 Thermocouple
028 Boiler water temperature sensor
029 Flow control switch
034 Fuse 2.5 A (slow) (10 pce.)
039 Wall retainer
040 Front panel
043 Flue gas temperature sensor

Wearing parts
018 Ignition and ionisation electrode

Parts not shown
023 Conversion kit G 31
030 Gas solenoid valve cable harness 35
031 Fan cable harness 100
032 Cable harness X20
033 Power cable, auxiliary earth
035 Cable fixing
036 Spray paint, Vitowhite
037 Touch-up paint stick, Vitowhite
038 Special grease
041 Installation and service instructions
042 Operating instructions
Ⓐ Type plate

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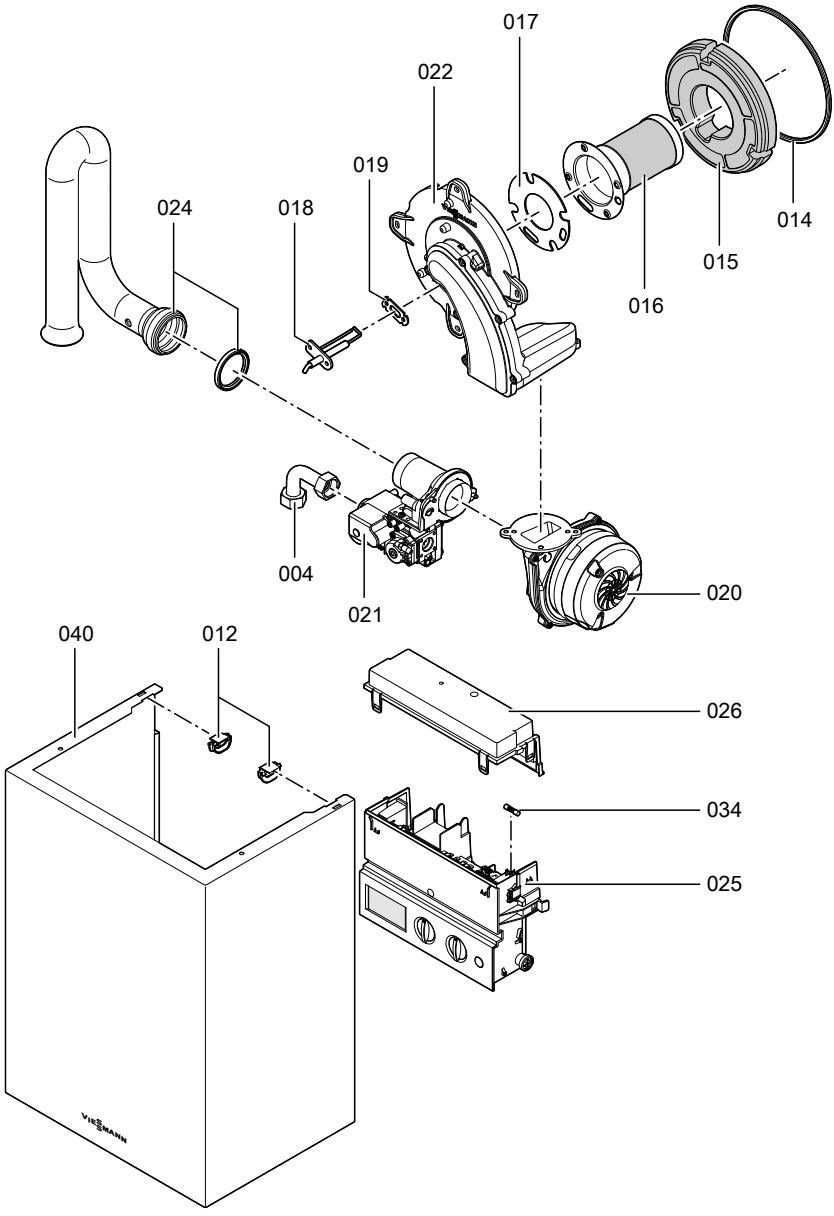
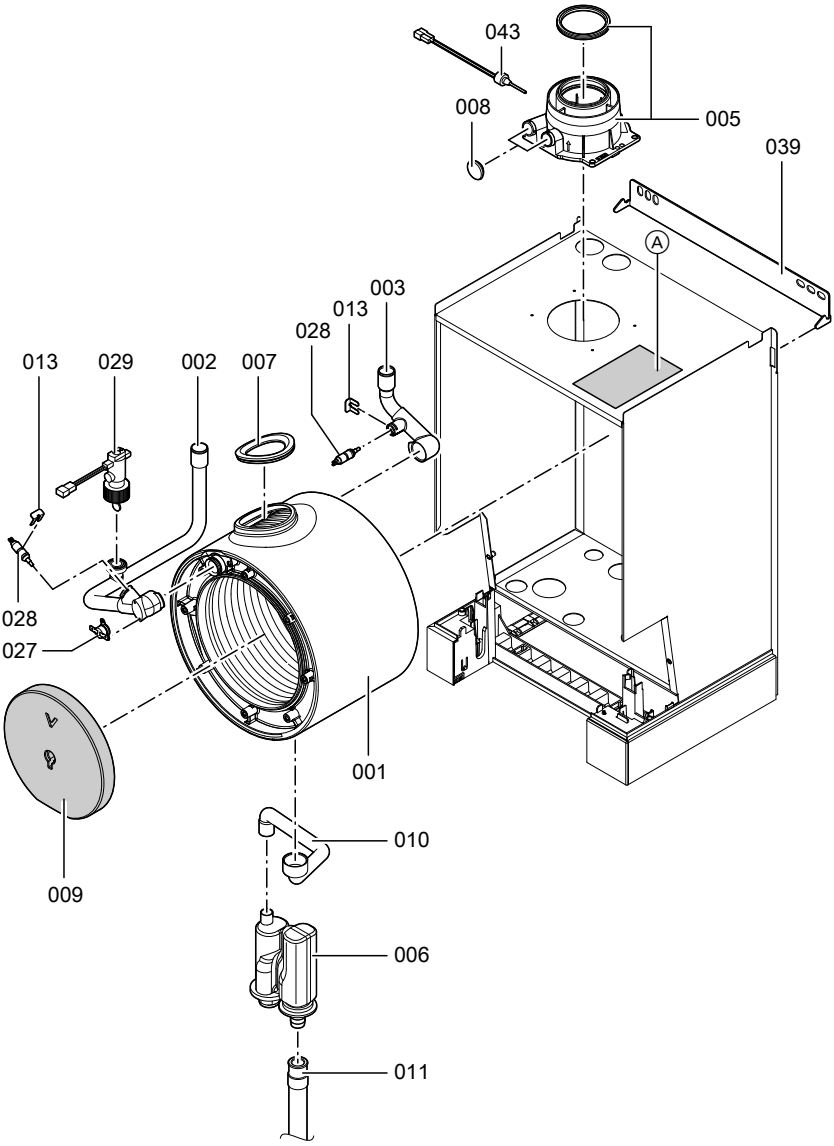
Parts lists (cont.)



Parts lists (cont.)



Specification

Rated voltage:	230 V~	Temperature limiter setting:	100 °C (fixed)
Rated frequency:	50 Hz	Line fuse (mains):	max. 16 A
Rated current:	2.0 A~		
Safety class:	I		
Protection:	IP X4 to EN 60529		

Permissible ambient temperature
- During operation: 0 to +40 °C
- During storage and transport: -20 to +65 °C

Gas fired condensing boilers, class II $_{2H3P}$

Rated output range					
T_V/T_R 50/30 °C	**kW**	**7.9 - 13**	**7.9 - 16**	**7.9 - 19**	**7.9 - 26**
T_V/T_R 80/60 °C	**kW**	**7.2 - 11.9**	**7.2 - 14.6**	**7.2 - 17.3**	**7.2 - 23.7**
Rated thermal load range	kW	7.4 - 12.2	7.4 - 15.0	7.4 - 17.8	7.4 - 24.3
Connection values [*1] relative to the max. load with					
Natural gas H	m^3/h	1.3	1.6	1.9	2.6
LPG P	kg/h	0.9	1.1	1.4	1.9
Power consumption (max.)	W	45	50	55	60
Weight without front panel (installation)	kg	24	24	24	24
Product ID		CE-0085 BT 0029			

Min. static pressure: 0,2 bar

Min. throughput: 200 l/h

[*1] *The connection values are only for documentation purposes (e.g. in the gas contract application) or to estimate the supplementary volumetric settings. Because of factory settings, the gas pressure must not be altered from these settings. Reference: 15 °C, 1013 mbar.*

Declaration of conformity

Declaration of conformity for the Vitodens 100-W

We, Viessmann Werke GmbH & Co KG, D-35107 Allendorf, confirm as sole responsible body that the product **Vitodens 100-W** complies with the following standards:

DIN 4702–6
EN 483
EN 625
EN 677
EN 50 165
EN 55 014
EN 60 335
EN 61 000-3-2
EN 61 000-3-3

In accordance with the following directives, this product is designated **CE-0085**:

90/396/EEC
92/ 42/EEC
2004/108/EC
2006/95/EC

This product complies with the requirements of the Efficiency Directive (92/42/EEC) for **condensing boilers**.

Allendorf, 4 February 2009

Viessmann Werke GmbH&Co KG

pp. Manfred Sommer

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5368 662 GB Subject to technical modifications.

Printed on environmentally friendly, chlorine-free bleached paper